

CLAIMS

What is claimed is:

1. A laser scan unit assembly disposed in a printer body, comprising:
a laser scan unit having a window on a front surface thereof through which a laser beam is emitted;
a hinge portion provided at a first side of the laser scan unit to pivotably dispose the laser scan unit on the printer body; and
an adjusting portion on a second side of the laser scan unit opposite to the first side to adjust an amount the laser scan unit pivots.
2. The laser scan unit assembly according to claim 1, wherein the printer body has a hinge supporting portion provided thereon to support rotation of the hinge portion.
3. The laser scan unit assembly according to claim 2, wherein the hinge portion is a hinge shaft and the hinge supporting portion is a groove to support the hinge shaft.
4. The laser scan unit assembly according to claim 3, wherein the hinge supporting portion further comprises a resilient member to press the hinge shaft against the groove.
5. The laser scan unit assembly according to claim 2, wherein the hinge portion is formed as a groove and the hinge supporting portion is formed as a hinge shaft to support the groove.
6. The laser scan unit assembly according to claim 1, wherein the adjusting portion comprises:

a first adjusting unit provided on the second side of the laser scan unit, and
a second adjusting unit provided on the body.

7. The laser scan unit assembly according to claim 6, wherein the first adjusting unit is an inclined surface and the second adjusting unit is a screw.

8. The laser scan unit assembly according to claim 6, wherein the first adjusting unit is a screw and the second adjusting unit is an inclined surface.

9. The laser scan unit assembly according to claim 7, further comprising a guiding ring at an end portion of the screw in contact with the inclined surface.

10. The laser scan unit assembly according to claim 6, wherein the adjusting portion further comprises a pressing unit to press the first adjusting unit against the second adjusting unit.

11. A laser printer forming an image using a plurality of laser beams, the laser printer comprising:

- a printer body;
- a photosensitive body on which an image is formed by the plurality of laser beams;
- a developing apparatus to develop the image formed on the photosensitive body and to transfer the developed image onto a paper;
- a paper convey apparatus to convey the paper to the developing apparatus; and
- a plurality of laser scan unit assemblies, each comprising:
 - a laser scan unit comprising a window on a front surface thereof through which the laser beam is emitted,

a hinge portion provided at a first side of the laser scan unit to pivotably dispose the laser scan unit, and

an adjusting portion provided on a second side of the laser scan unit opposite to the first side to adjust an amount the laser scan unit pivots,

wherein distances between the plurality of laser beams are adjusted by the adjusting portions.

12. The laser printer according to claim 11, further comprising a printer body comprising a plurality of hinge supporting portions provided thereon to support rotation of the hinge portions, respectively.

13. The laser printer according to claim 12, wherein each hinge portion is formed as a hinge shaft and each hinge supporting portion is formed as a groove to support the respective hinge shaft.

14. The laser printer according to claim 13, wherein each hinge supporting portion further comprises a resilient member to press the respective hinge shaft against the groove.

15. The laser printer according to claim 12, wherein each hinge portion is formed as a groove, and each hinge supporting portion is formed as a hinge shaft supporting the respective groove.

16. The laser printer according to claim 11, further comprising a printer body to support the hinge portions, wherein each adjusting portion comprises:

a first adjusting unit provided on the second side of the laser scan unit, and

a second adjusting unit provided on the printer body.

17. The laser printer according to claim 16, wherein each first adjusting unit is an inclined surface and each second adjusting unit is a screw.

18. The laser printer according to claim 16, wherein each first adjusting unit is a screw and each second adjusting unit is an inclined surface.

19. The laser printer according to claim 17, further comprising guiding rings at end portions of the screws which are attached to the inclined surfaces.

20. The laser printer according to claim 16, wherein each adjusting portion further comprises a pressing unit to press the respective first adjusting unit against the respective second adjusting unit.

21. The laser printer according to claim 13, wherein the laser beams and the respective hinge shafts are formed in a same plane.

22. The laser printer according to claim 13, wherein the grooves have a V-shape.

23. The laser printer according to claim 14, wherein the resilient members are metal plates having a resilience.

24. The laser printer according to claim 20, wherein the pressing units each comprise:

a fastening portion;

a guiding rod fastened on the fastening portion; and

a spring between the first adjusting unit and the guiding rod.

25. An apparatus, comprising:

a scan unit to emit a laser beam;

a hinge to pivotably support the scan unit; and

an adjusting portion to adjust an amount of pivot of the hinge.

26. The apparatus according to claim 25, wherein the hinge and the adjusting portion are on opposite sides of the scan unit.

27. The apparatus according to claim 25, wherein the adjusting portion comprises:

a screw; and

an inclined surface in contact with the screw,

wherein a linear movement of the screw across the inclined surface pivots the scan unit.

28. The apparatus according to claim 27, wherein the inclined surface is attached to the scan unit.

29. The apparatus according to claim 27, wherein the adjusting portion further comprises a nut to support the screw and formed on the scan unit.

30. The apparatus according to claim 25, further comprising a support to support the hinge.

31. The apparatus according to claim 30, wherein the hinge is a V-shaped groove and the support is a shaft.

32. The apparatus according to claim 30, wherein the support is a V-shaped groove and the hinge is a shaft.

33. An image forming apparatus, comprising:
a body; and
a scan unit assembly disposed within the body, comprising:
a scan unit to emit a laser beam,
a hinge portion to pivotably support the scan unit, and
an adjusting portion to adjust an amount of pivot of the hinge portion.